



Martinsville Reservoir 2002 Management Report

Martinsville Reservoir is a 175-acre impoundment located just north of the city of Martinsville, Virginia. The impoundment is owned and controlled by the city of Martinsville for water supply while the fishery is managed by the Virginia Department of Game and Inland Fisheries. The most popular sportfish species of interest are largemouth bass, bluegill, black crappie, and yellow perch. Northern pike and channel catfish have been periodically stocked but have recently been discontinued due to poor stocking success and low angler returns. Fish surveys conducted during 2000 and 2001 showed that the fishery in Martinsville Reservoir was in fair condition.

The largemouth bass population at Martinsville Reservoir had a limited number of adult size fish. The main body of the reservoir is dominated by one and two year old fish, which is an indication of over harvest. There were however, some nice bass (up to 23 inches) collected in the upper reaches of the reservoir. Since this reservoir has motor restrictions, the largemouth bass appear to be exploited at a higher rate in the lower and more accessible areas near the boat ramp. Growth for these fish appears to be sufficient to add additional fish in the larger size groups. Regulations that are more restrictive should improve the largemouth bass fishery throughout the reservoir. A regulation change for largemouth bass may be initiated to improve the fishery.

Bluegill are a member of the sunfish family and are the most abundant species of sunfish in Martinsville Reservoir. Redbreast sunfish and redear sunfish are also present but do not constitute a significant portion of the sunfish population. The low number of large adult bluegill in this reservoir is likely a result of the reduced largemouth bass population, the primary predator. Without sufficient predators to reduce sunfish numbers, bluegill become overcrowded and stunted from lack of adequate forage. A reduction in the number of sunfish could be achieved by increased largemouth bass densities. Reduced sunfish densities could result in better growth and bigger sunfish.

The Crappie population is comprised primarily of black crappie. The 2001 samples collected 243 black crappie and only one white crappie. White crappie typically require shallow and turbid conditions for successful reproduction. Martinsville Reservoir remains clear most years, which precludes white crappie reproduction. Most crappie collected were 5-7 inches in length (1999 year class), but there was a fair number of 8-9 inch fish collected as well. This crappie fishery can vary due to cyclical reproductive success. Anglers can expect good fishing for crappie for at least a couple more years due to the good year class in 1999. Most crappie are found around structure, such as beaver lodges and fallen trees. They may also be found in deeper water. Crappie anglers should concentrate their efforts in areas for best results.

Anglers that have the time and battery power to get the upper end of the reservoir will be rewarded with more opportunities to catch quality fish. Since the water in this reservoir is usually very clear, most fish will be easily spooked. Anglers may want to use light line and keep as much distance possible between their boat and the structure they are fishing.

The city of Martinsville maintains a park at Martinsville Reservoir, this park contains picnic facilities and a boat ramp. Use of the park and reservoir are restricted to the hours of sunrise to sunset. A boat permit is required to launch boats. The permit is \$2

per day or \$10 per calendar year. Permits can be acquired from the reservoir office or by calling Darrell Hammock at 276-656-5179. Boaters are restricted to electric motor use only. The reservoir can be accessed by taking Rt. 108 from Rt. 174 out of Collinsville or Martinsville.

Martinsville Reservoir Key Findings - 2001

- 2000 and 2001 sampling indicated the largemouth bass fishery has limited numbers of adult fish. Few bass were collected above 12 inches except for the upper most section of the reservoir, which is hard to access due to its distance from the boat launching area and outboard motor restrictions.
- Martinsville Reservoir was sampled in 2000 and again in 2001 due to cold water temperatures in 2000. There was not sufficient numbers of sunfish collected during the 2000 sample period to adequately reflect the fish populations.
- Catch rates were 54 and 58 fish per hour for largemouth bass in 2000 and 2001, respectively. Stock density indices for largemouth bass were adequate, however, most of the larger fish collected were from the upper reaches of the reservoir where fishing pressure is most limited. Only 5 largemouth bass >300mm were collected in the lower half of the reservoir.
- The largemouth bass population may benefit from more restrictive harvest regulations. The reservoir is currently regulated under statewide regulations (no minimum size limit for largemouth bass).
- Growth for largemouth bass was good. Bass reach 10 inches at age 2.
- The sunfish population is comprised of bluegill, redbreast sunfish, and redear sunfish. Bluegill dominated the sample with 283 fish per hour while redbreast sunfish were the second most dominant species with 27 fish per hour.
- Bluegill appear to be overcrowded based on high catch rates and slow growth. Growth means for bluegill are 2.6" for age1, 4.7" for age2, 5.6" for age3, and 6.3" for age4.
- The sunfish fishery may benefit from increased predation.
- Black crappie were abundant (129 fish per hour) but were dominated by small fish. The PSD value for these fish was 21, which further demonstrates a population dominated by small fish. The fishery could be cyclic due to variable recruitment. There was no growth data collected for crappie to substantiate year class recruitment.
- There was only one gizzard shad and seven carp collected in 2001. The presence of undesirable species does not appear have undesirable affects on this fishery.
- A change in the largemouth bass regulations to include a minimum size limit will be investigated.
- Additional stockings of northern pike and channel catfish should be discontinued due to limited success. Exceptionally clear water is likely to contribute to predation of stocked fish by increased predator vulnerability after stocking.